

Overview

HP Server Console Switches are key components for rack mount implementations (a console represents one keyboard, video monitor, and mouse (KVM) attached to a server). The family of HP Server Console Switches allows multiple servers in a rack to be accessed and managed by one keyboard, monitor, and mouse. By using a console switch, as many as 256 computers running different operating systems can be managed. The 8-Port and 16-port Server Console Switches feature an On-Screen Display (OSD) interface, which has intuitive menus for accessing each attached computer or serial attached device. Equipment can be identified by a user-defined name or sequentially by number, enabling easy access.

HP Server Console Switches can be connected in a tiered fashion, to increase server access from eight servers to as many as 256 servers. Switching between computers is accomplished by typing a switching command at the keyboard, or by using the mouse to interact with the graphic interface of the selected computer via the OSD.

The HP Server Console Switch family of products is available in 8- and 16-Port versions. The 8-Port model offers single console support via the local user port, while the 16-port version offers dual console support, allowing the flexibility of controlling switch configurations from more than one location, or by more than one user. Standard rack mounting of the HP Server Console Switches will take up 1U (1.75") of front panel rack space. However, the Switches can also be mounted in a "zero U" profile by mounting in the side rails of the rack, or behind the HP 1U Keyboard Drawer or the 1U TFT5600 Keyboard/monitor drawer.

What's New

- BladeSystem c-Class support
 - Using the BladeSystem c-Class KVM Interface Adapter connected to the HP Server Console Switch allows an administrator to connect locally to a Blade Server for maintenance or out of band management. Supports direct attachment of USB devices and is compatible with BladeSystems c-Class servers.
- Preemption support:
 - Preemption allows a remote user connected via an HP IP Console Switch to preempt a local user on the HP Server Console Switch. Requires latest firmware.
- Serial Console Support:
 - Using the Serial Interface Adapter connected to the HP Server Console Switch allows an administrator to view a serial console from a Unix or Linux server or a network device such as a switch or router to be viewed as if it were a KVM console. Note that only viewing of serial consoles is supported, file transfers and detecting strings in the serial data stream are not supported.

Models

HP Server Console Switches	1X8 – Port KVM	336044-B21
	2X16 – Port KVM	336045-B21

Related Options

CAT5e Cables	3 Foot (1 m) – 4 pack	263474-B21
	6 Foot (2 m) – 8 pack	263474-B22
	12 Foot (4 m) – 8 pack	263474-B23
	20 Foot (6 m) – 4 pack	263474-B24
	40 Foot (12 m) – 1 pack	263474-B25

Interface Adapters	BladeSystem c-Class KVM Interface Adapter – 1 pack	AF605A
	PS/2 Interface Adapter – 1 pack	262588-B21
	PS/2 Interface Adapter – 8 pack	262587-B21
	USB Interface Adapter – 1 pack	336047-B21
	Serial Interface adapter – 1 pack with power supply	373035-B21

Overview

Target Applications and Markets

Network Administrators, System Administrators, Engineering Managers, Chief Information Officers, and Managers of Information Systems are all among the users who will see benefits from using the HP family of server console switches.

- Easy access to multiple servers (any server with PS/2 or USB I/O connection port)
 - Multi-platform management from one console (Microsoft® Windows®, Novell, UNIX®, Linux etc)
 - Local control and management of servers HP Server Console
-

Features

- **On-Screen Display (OSD)** – Displays system-related information on the console monitor, such as selected server name, status, power-up test data and configuration menus.
- **Programmable Scanning** – An evaluation of system performance can be made by sequentially scanning any or all of the computers in the system. Programmable scanning allows you to determine which computers to include as well as the duration of the connection.
- **Configuration NVRAM** – NVRAM (non-volatile RAM) makes it easy to set configuration information using commands entered from the keyboard. The NVRAM stores the resulting configuration until a user decision is made to change the information, even if the unit loses power.
- **Password Protection** – For protection against unauthorized users, the switch box provides a password option for security purposes.
- **Switch Firmware Update** – The application code of the switch can be quickly and easily updated via FLASH ROM. The port communications settings are automatically configured to allow direct downloading from the connected computer.
- **Multiple Space Saving OU Installation Methods** –
 - Side Mount - Rails are provided for mounting the unit to the side of rack cabinets with side mounting capability.
 - Rear Rack Mount - HP Console Switches may be mounted behind a HP Integrated Keyboard and Drawer (257054-XXX), the TFT5600 or the TFT7600 rack mounted keyboard and monitor with slide rails provided with the switch.
- **Support for variety of server connections with Interface Adapters**
 - PS/2
 - USB
 - VT 100 serial console support
 - BladeSystems support via front diagnostics connector

Which Model is Best?

Single-user console switches

The single-user HP Server Console Switches has one input (or user) port for one user console (one keyboard, monitor, and mouse) and multiple output (or system) ports for connecting multiple systems to the switch (one-to-many).

- One user has control over multiple computers with a single user switch.
- Single user switches can also be tiered (one switch connected to another) via dedicated ARI port to expand the amount of systems controlled by one user without sacrificing an additional server port.
- Expansion modules: Using one of the system ports on the switch to connect to another switch or to the expansion module allows up to 128 servers to be controlled by single user.

Console Switch	HP Server Console Switch, 1X8-Port KVM	336044-B21
-----------------------	--	------------

Multi-user console switches

The multi-user server console switch has two user ports for multiple user consoles, and multiple system ports as well (many-to-many). The multi-user console offer expanded flexibility, such as the following scenarios:

- Simultaneous control of servers in both the data centre and in other remote locations.
- If there are multiple network administrators, a multiple console switch allows each of them to access all of the servers in their data centre to diagnose problems, all from separate locations.

Console Switch	HP Server Console Switch, 2X16-Port KVM	366045-B21
-----------------------	---	------------

HP Server Support

HP ProLiant Server Support

All HP ProLiant servers running any operating system are supported on all HP Server Console Switches

HP Integrity Server Support

Integrity Server support is dependent on operating system and hardware configurations. For systems capable of displaying VGA graphics the USB Interface Adapter (PN: 336047-B21) may be used. Some Integrity Servers may require an optional graphics adapter.

With some operating systems the Serial Interface Adapter (PN: 373035-B21) may be connected to the RS-232 management port to provide VT100 terminal emulation through the HP Server Console Switch.

HP Unix Server Support

HP9000 Servers can be managed using the Serial Interface Adapter (PN: 373035-B21) connected to the RS-232 management port to provide VT100 terminal emulation through the HP Server Console Switch.

NOTE: For additional information on supported options for the HP Integrity and HP9000 Servers please consult the HP9000, Integrity and carrier-grade servers Configuration Guide.

HP Serial Console Servers may also be used to support serially managed servers and devices.

CAUTION: Do not use Interface Adapters to cascade HP KVM Server Console Switches with HP KVM Server Console Switches. If Interface Adapters are used to cascade these products, undesirable operations might occur.

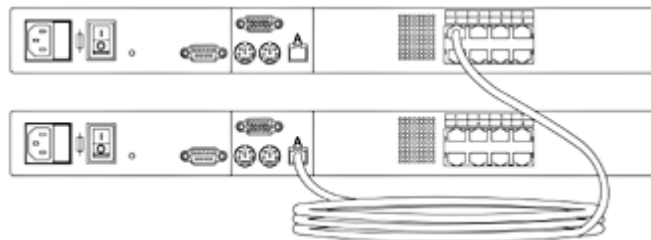
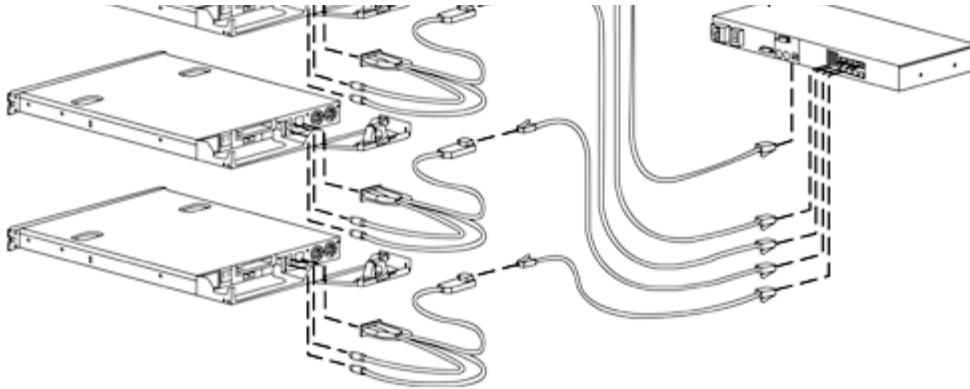
NOTE: An optional Expansion Module can be added to the HP KVM Server Console Switch system, increasing the total number of accessible servers, only one level of tiering is allowed and implementing an Expansion Module is considered one level.

NOTE: To perform a firmware upgrade for a cascaded HP KVM Server Console Switch and all attached Interface Adapters; you must locally connect the keyboard, monitor, and mouse to the cascaded HP KVM Server Console Switch to access the local OSD.

NOTE: The HP KVM Server Console Switch does not support Compaq KVM PCI Cards or HP legacy console switches.

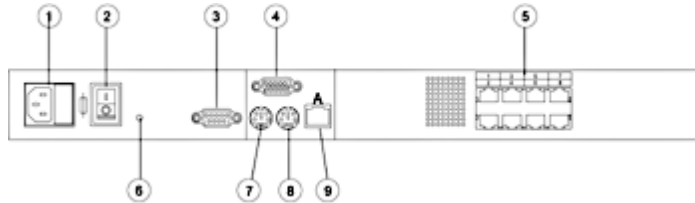
Example of an HP KVM Server Console Switch Cascade Configuration

HP Server Support

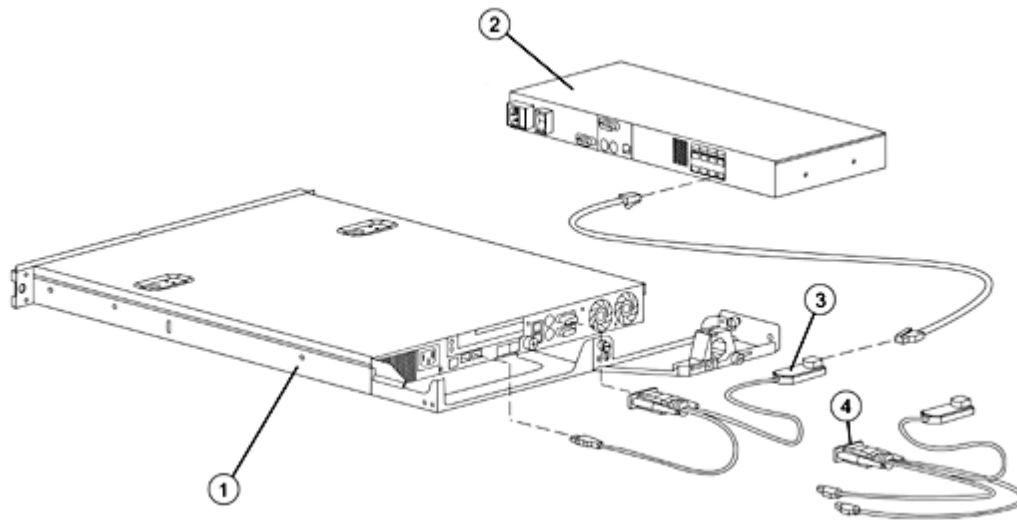


- 1. Server
 - 2. Main HP KVM Server Console Switch
 - 3. PS/2 Interface Adapter or USB Interface Adapter*
 - 4. UTP CAT5 cable
 - 5. UTP CAT5 cable
 - 6. KVM cable
 - 7. Local port
 - 8. Cascaded HP KVM Server Console Switch
- * USB IA not shown

Components



- 1. Power connector
- 2. Power switch
- 3. Serial download connector
- 4. Monitor connector
- 5. Server connection ports
- 6. Activity indicator light
- 7. Keyboard connector
- 8. Mouse connector
- 9. RJ-45 Interface port (designated by the letter A)



1. Server
2. HP KVM Server Console Switch
3. USB Interface Adapter
4. PS/2 Interface Adapter

Service and Support, HP Care Pack, and Warranty Information

Service and Support Offerings (HP Care Pack Services)

Hardware Installation (Electronic)

U2871E

Three-year limited warranty, including hardware diagnostic support, pre-failure warranty (coverage of hard drives, memory and processors). The warranty is fully supported by HP Services and a worldwide network of resellers and service providers. In addition 90-day's getting started software telephone support may be covered under the warranty or available for an additional fee. Enhancements to warranty services are available through HP Care Pack services.

NOTE: Limited warranty is 3 year parts only.

Care Pack services provide a range of life cycle support options that let you choose the service levels that meet your business requirements, from basic to mission-critical.

A full range of HP Care Pack hardware and software services are available including:

- Installation and start up
- Education courses
- Extended onsite hardware coverage hours from same business day 13 hours, 5 day to 24 hours, 7 days call window with options including 4-hour response or 6-hour Call To Repair
- Comprehensive range of software technical support for Microsoft, Linux, ProLiant Essentials and VMWare-based IT solutions helping to deliver high level of application availability. Response times range from 30 mins for critical problems to 2 hours.
- System Management, Performance Services and Mission Critical Support Solution

HP Care Pack Services include HP branded hardware options qualified for the server, purchased at the same time or afterwards, internal to the enclosure, as well as 22" and smaller external monitors and tower UPS options up to 3KVA. 22" and smaller external monitors will be covered at the same service level and coverage period as the server. For servers or storage systems installed within a rack, service also covers all HP qualified rack options installed within the same rack.

NOTE: For more information on HP Care Pack services, contact any of our worldwide sales offices or resellers or visit our worldwide Web site on the internet at: <http://www.hp.com/hps/carepack>

NOTE: For more complete information on HP Services offerings, customers and resellers, please visit us at: <http://www.hp.com/hps>

NOTE: Additional information regarding worldwide limited warranty and technical support is available at: <http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>

Technical Specifications

HP Server Console Switch 0x1x8 and HP Server Console Switch 0x2x16	Dimensions	Height	1.72 in (4.36 cm)
		Width	17 in (43.8 cm)
		Depth	6 ½ in (16.51 cm)
		Weight	4.5 lb (2.04 kg)
Power Requirements	Power Requirements	Rated Voltage	100 to 240V AC
		Rated Frequency	50 to 60 Hz
		Rated Input Current	0.5 to 0.25A
		Output Power	50W (max)
		Heat	171 BTU/hr (max)
		Temperature Range	Temperature Range
Ambient Storage and Shipping Temperature	86° to 140° F (30° to 60° C)		
Temperature	Temperature		
		Transit	-22° to 140° F (-30° to 60° C)
		Storage	-4° to 140° F (-20° to 60° C)
Relative Humidity (non-condensing)	Relative Humidity (non-condensing)	Operating	20% to 80%
		Non-operating	5% to 90%
Video Modes Supported	Video Modes Supported	VGA, SVGA, XGA	

CAT 5 Cable lengths and Video Resolution Restrictions

	1280 x 1024	1024 x 768	800 x 600
50 ft (15m) cable length	Y	Y	Y
75 ft (22m) cable length	-	Y	Y
100 ft (30m) cable length	-	-	Y

Environment-friendly Products and Approach **End-of-life Management and Recycling** Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to <http://www.hp.com/go/green>. To recycle your product, please go to: <http://www.hp.com/go/green> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

Technical Specifications

© Copyright 2008 Hewlett-Packard Development Company, L.P.

The information contained herein is subject to change without notice.

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.